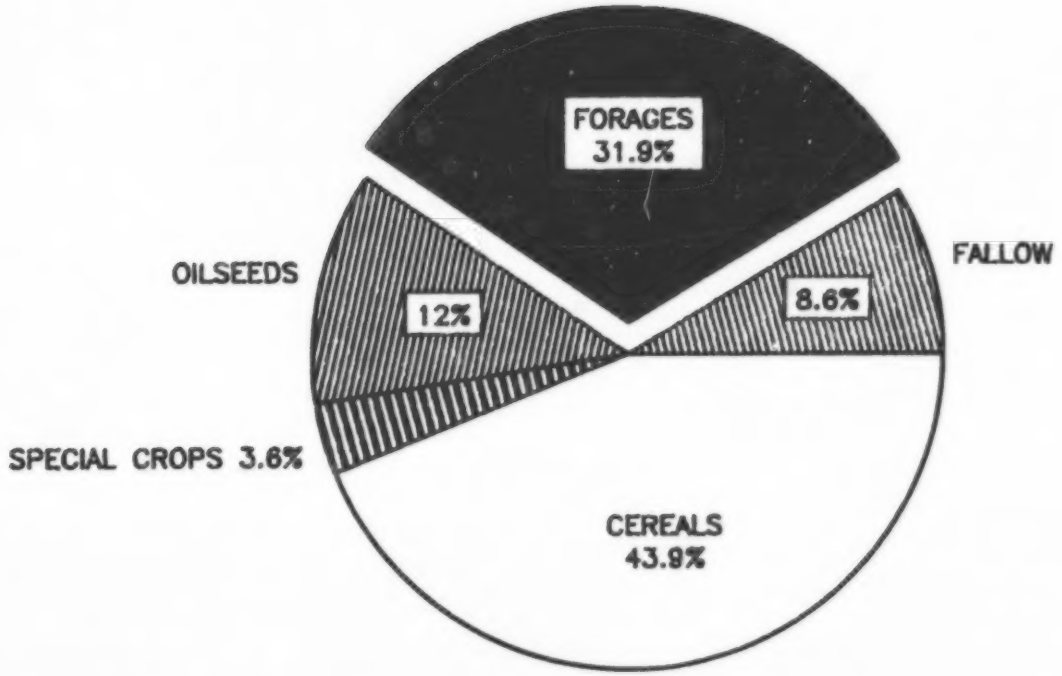
FORAGE STRATEGY FOR MANITOBA



LAND USE
(1985)

Manitoba
Agriculture

D R A F T

FORAGE STRATEGY FOR MANITOBA

PRESENTED AT EXECUTIVE MEETING ON FRIDAY JANUARY 23, 1987

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INTRODUCTION

Manitoba has an excellent soil base and climate combination for the production of forages. Forages provide great potential to enhance and stabilize farm incomes. However, they have often been perceived by many farmers simply as a necessity for livestock production and not as an income generating crop.

This document outlines a strategy to enhance the economic opportunities for Manitoba farmers by improving the forage industry. It provides a background of the forage industry in the province, presents relevant objectives, and outlines an implementation process which focuses on production aspects, forage utilization and marketing, and conservation linkages. Also included are sections relating to the communication of the strategy and an evaluation process.

BACKGROUND

Manitoba has 5.4 million acres of agricultural land devoted to forage production, including rangeland, representing about 29% of the total farm lands in the province. The annual value of production from these lands is over $250,000,000. Approximately 95% of Manitoba's forage production is utilized by the local livestock industry; the balance is exported to other provinces and to the United States.

Livestock production is a land-based, forage-utilizing enterprise. Forages are the biggest feed component of the ruminant diet. The profitability of the livestock industry in Manitoba could be substantially improved by reducing forage production costs and improving forage untilization in both the pasture and winter feed phases. More efficient production of hay and silage is possible through reduction of waste and spoilage during harvesting and storage.

In addition there is a market beyond the farm livestock enterprise. Good quality hay, especially pure alfalfa, is a readily saleable commodity. Net farm returns from alfalfa can compare favourably with returns from other crops.

Hay is also an exportable product. There have been frequent requests from large markets such as the United States and Japan for a stable supply of good quality hay. There are further opportunities for the sale of hay to specialized markets such as the horse and dairy industries.

Despite these positive market indications, there is no systematic marketing system in Manitoba or Canada. A formal hay quality grading system is not in use; there is no established marketing process or mechanism for advance payments; there are few storage facilities; and the cost of transporting hay is excessively high.

The forage processing industry in Manitoba is not well-established. High capital costs for construction and high energy costs have limited the number of pelleting and cubing plants established in the province. There is an opportunity for increased processing, particularly compressing, to reduce bulk and subsequent costs for truck and rail transportation.

Forage seed production continues to be an important and specialized industry in the province. Over the years Manitoba has developed a reputation in domestic and foreign markets as a reliable producer of high quality seed. There is some room for expansion in this industry but caution must be exercised as markets are limited.

Significant improvement in the yield and quality of forages can be realized with good management, especially in regards to establishment, fertility, harvesting and storage practices. Mechanized hay production, however, requires specialized equipment and high capital investment. An improvement in pasture management requires an increased commitment from producers.

Soils prone to wind and water erosion, flooding and excess moisture would benefit from the use of forage crops. In addition forages benefit the soil by increasing organic matter, reducing salinity and improving internal drainage. Increased use of forage crops as conservation measures would complement Provincial programs in flood damage reduction and wildlife management. Also, forages generally provide better economic returns on marginal lands.

The off-farm sale of hay is an alternative to feeding forages to livestock. The source of farm incomes can be diversified, farm workloads can be redistributed and total net returns can be increased by including hay and forage seed as cash crops.

A problem seems to exist with production and utilization or sale of hay. In general farmers do not perceive a value in the hay itself but only to the livestock that it supports. As a consequence, management technology is not being applied to the same extent to forage crops as it is with other crops or to the livestock.

Currently, there is little research being conducted in the province into forage production, utilization and marketing. The University of Manitoba and Agriculture Canada Brandon Research Station are the only institutions devoting any efforts towards forages. Both are under budgetary and staff restraints. Manitoba has an urgent need for research in variety development and evaluation, agronomy, processing, storage and marketing.

OBJECTIVES

The overall forage objective is to enhance the economic and social well-being of family farms, and Manitoba at large, by supporting the development of forage industry. Such development could improve and stabilize net farm incomes, create employment, conserve resources and complement other provincial priorities.

This can be achieved by:

1. developing markets and improving the marketing system.
2. improving efficiency of on-farm utilization of forages.
3. improving the production, harvesting and storage of forages.
4. expanding the use of forages in soil conservation and resource development activities.

IMPLEMENTATION

Forages have the potential to become more significant contributors to the profitability of farm units and the provincial economy providing key actions are undertaken, and some constraints mitigated.

These requirements are discussed in the following pages under the heading of: marketing, research needs, technology transfer and resource conservation.

1. Marketing

There is opportunity to capitalize on Manitoba's strength as a producer of low-cost, high quality forages and forage seed through the development of a forage products marketing and export industry. The actions required to foster, support and complement the development of the industry include:

i) Manitoba must demonstrate its will and ability to be recognized as a dependable source of quality forage products. Manitoba Agriculture can provide the catalyst by immediately (within 1 year) developing a hay quality standards system in co-operation with the livestock industry and by including these standards as components of a revised and formalized Provincial Hay Listing Service.

ii) Manitoba should encourage Agriculture Canada to review the regulations pertaining to the "Hay and Straw Inspection Act" of 1933. These regulations should provide an internationally recognized hay grading standard.

iii) The establishment of an orderly and systematic in-province forage marketing network is a pre-requisite to any export aspirations. The merits of producer operated forage marketing agencies including hay auctions and listing services need to be evaluated, and encouraged if promising. Manitoba Agriculture can play a lead role by initiating these activities.

iv) In addition to reacting positively to out-of-province interests in Manitoba forage products, initiatives are required to actively seek out opportunities in both North American and global markets.

Manitoba Agriculture can provide leadership by:

- analyzing the world trading patterns in forage products and identifying markets which show promise for development.
- investigating the infrastructure of these markets including major customers, preferred forage types, packaging forms, quality expectations, phytosanitary requirements, volumes, etc.
- identifying of areas where Manitoba can obtain a significant share of the market.
- compiling marketing information and presenting this information to the industry and farmers.
- developing in conjunction with the industry, effective marketing programs and co-ordinate buyer/seller interface. Co-operation between Manitoba Agriculture producers, the processing and transportation industries and others to develop the technology required in this area will be necessary.
- investigating with the view of resolving any difficulties identified in supplying particular markets including need for processing, transportation logistics or costs, quality assurances, etc.

v) To ensure reliability and continuity of supply as these markets develop, the promotion of forages as an economic crop alternative will be required. The nurturing of the concept of hay as a contract crop will support this promotion.

vi) The development of technology aimed at reducing the production costs of forages and forage seeds to maintain or enhance Manitoba's competitive advantage as an exporter is required.

vii) A strong promotional program is required to improve the general perception of forages as a crop and create an awareness of the profitability of forages.

viii) The development and maintenance of a formal liaison involving Manitoba Agriculture, the seed and forage marketing trades, producer organizations, and research institutions is required to provide a forum for the exchange of information. This will assist in defining export opportunities and /or allow rapid adjustment to changing markets, such as a Manitoba affiliate of the Canadian Forage Council.

2. Research Needs

Although forages are currently a significant crop in Manitoba, they are nevertheless hampered by a lack of production research. If forages are to maintain their current status, let alone become a more important commodity, the following research needs must be satisfied:

i) In the area of crop adaption and selection, more emphasis is required in the evaluation of species and variety evaluation for both herbage and seed production under Manitoba conditions. In addition, there is a need for the breeding and development of new varieties tailored specifically to Manitoba conditions, including a locally adapted alfalfa, bromegrass with reduced creep, etc.

ii) With respect to agronomic practices, research is required to upgrade current technology in such areas as fertility requirements, increased stand longevity, increased yields, maximum economic yields, etc.

iii) To mitigate specific problems affecting the yield and quality of forages grown in Manitoba, research efforts are required in such areas as the development and evaluation of herbicides including assessment of crop tolerance; determination of pesticide residue levels in feedstuffs; development of data to maintain

currently available herbicides; evaluation of practices and products to control diseases which affect seed and forage-producing stands; and evaluation of practices to control other pests affecting forages such as pocket gophers.

iv) Significant research activity is required in the area of harvesting and utilization of forages with particular emphasis on speeding up forage drydown, determination of safe moisture levels for harvest, evaluation of forage preservatives and drying methods, and the development and evaluation of forage storage systems. New technology would benefit the on-farm use of forages and complement the export of quality forage. In particular, research should be directed at the development and/or evaluation of techniques to reduce the harvesting, storage and feeding losses incurred through the use of the large round bale system. This system is singled out as a priority in view of the many advantages it otherwise offers.

v) To identify forages as a realistic alternative crop, physical and economic evaluations are required, with emphasis on determining the over-all profitability of forages on all soil classes and the complementary benefits to other crops realized by including forages in a rotation.

vi) Despite the Manitoba livestock industry's strong dependence on rangelands, technology with respect to the management of rangeland types in the Province is minimal. Research is specifically required in such areas as the development or adaption of grazing methods and systems best adapted to each rangeland type, the development of low cost rangeland improvement practices and the evaluation of methods of controlling brush invasion of rangelands.

3. Technology Transfer

Notwithstanding the need for research in certain aspects of forage production, there currently exists a wealth of technology not fully utilized by producers. Technology transfer efforts must be intensified and focused in certain key areas:

i) the relationship between forage and livestock as a continuum needs to be recognized and emphasized in an integrated forage-livestock extension effort.

ii) the adoption of a two-tier extension strategy featuring
   a) home-delivered material to create awareness.
   b) management packages to provide detail.
      eg. farm paper articles followed by fact sheets and/or video cassettes.

iii) increase the number, improve the appearance and expand the availability of extension materials.

iv) enlarge the information distribution network to farm service centers, elevators, livestock auction rings, etc.

v) utilize producer groups as vehicles of extension; and establish achievement award programs within these groups.

vi) maintain on-farm and regional demonstrations and expand the use of data generated through these demonstrations.

4. Resource Conservation

Forages are a natural component of land and water management programs. In addition, forages are complementary to many conservation and resource management efforts. The role of forages in these areas can be expanded by:

i) determining and demonstrating the advantages of forages on problem and lower capability soils.

ii) investigating and illustrating the benefits to both agriculture and other resource users from the inclusion of forages in multiple use situations.

iii) reviewing the effectiveness and relevancy of forage seed programs available through the Conservation Districts.

iv) reviewing the policy regarding agricultural Crown land rentals, with the view to setting rates which would result in optimum land use.

v) improving liaison between Manitoba Agriculture, producers, and Conservation and resource management organizations.

IMPLEMENTATION PLAN

In keeping with the overall objectives of the strategy and the specific needs that are outlined in the Implementation Section, the plans for the next two years are:

1. Between March and June of 1987 present the Forage Strategy to producer groups and outside agencies for their review and comments. This is to be done by both central and regional staff.
2. By September of 1987 the Forage Team is to develop a Manitoba Hay Quality Standard and incorporate this into the Provincial Hay Listing Service.
3. The Forage Team is to establish a procedure for encouraging private sector hay auctions and be instrumental in setting up and conducting an initial auction on a demonstrational basis.
4. Establish a Forage Marketing Committee composed of the Grassland Section, and the Marketing and Economics Branches to investigate, analyze and report to the Forage Team on out-of-province markets for Manitoba Forage Products.

5. - The Forage Team and principally the Forage Team Leader will lobby both Agriculture Canada and the University of Manitoba relative to the lack of Forage Production Research being conducted in the Province and point out the priorities as outlined in the Forage Strategy.

6. - Establish a Manitoba Forage Association. It is envisioned that this group will be composed principally of producers and will serve as an Umbrella Organization for local grassland societies and forage clubs. The Forage Team will draft up a set of objectives, circulate them to interested associations and groups and arrange an organizational meeting.

7. - Publish at least 5 new Forage Fact Sheets. Two of these should deal with native pasture management and the round bale system for hay production. Regional staff will be responsible for authoring at least three of these.

8. - Regional members of the Forage Team will work with the established Conservation Districts to demonstrate the advantages of Forage Crops.

9. - The Forage Team will encourage the Conservation Districts to review their Forage Seed Purchase Program.

10. - The Forage Team will encourage Agricultural Crown Lands Branch to review their Land Rental Rates.

COMMUNICATION OF STRATEGY

To ensure the successful implementation of this strategy the objectives and activities should be effectively communicated to staff, research institutions, government agencies, producer groups, and industry. Manitoba Agriculture should distribute the document widely and then meet with all interested groups and individuals to obtain their views. These views will be used to strengthen the strategy.

Once finalized all departmental strategies should be communicated to producers and to the general public.

EVALUATION

The final element to complete a forage strategy is an evaluation process. Information obtained is vital to decision-making with regard to fine-tuning the strategy elements, adding or deleting major elements, or simply confirming ongoing activities.

Marketing - Determine if an interim hay quality standard, a marketing network, and a Manitoba Forage Council were put in place and assess their impact on forage marketing. Evaluate other activities in relation to a market identified and volume of product that is moved.

Research - Evaluate forage research activities in relation to the information developed, relevancy to present constraints and to its ability to provide usable data and information in a reasonable time frame.

Technology Transfer - With the assistance of producer surveys, evaluate the extent to which technology is being adopted. Identify the number and quality of forage related extension materials prepared, and evaluate the expansion and effectiveness of the distribution system. Determine the effectiveness of forage producer groups in extension efforts.

Resource Conservation - Determine the degree to which forage production was demonstrated on problem and lower capability soils. In addition determine the degree to which inter-discipline conficts were mitigated with the assistance of forage programs.

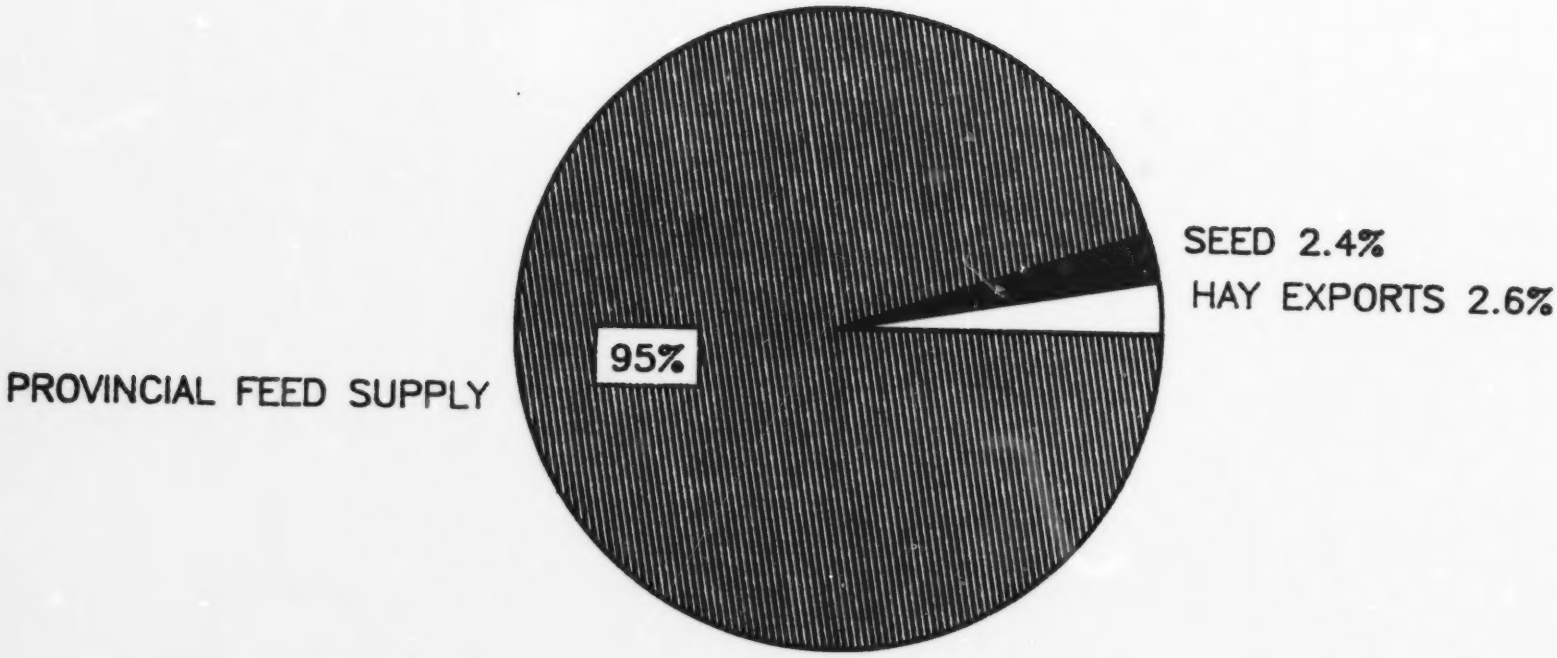
ADDITIONAL INFORMATION

RELATING TO

FORAGE PRODUCTION IN

MANITOBA

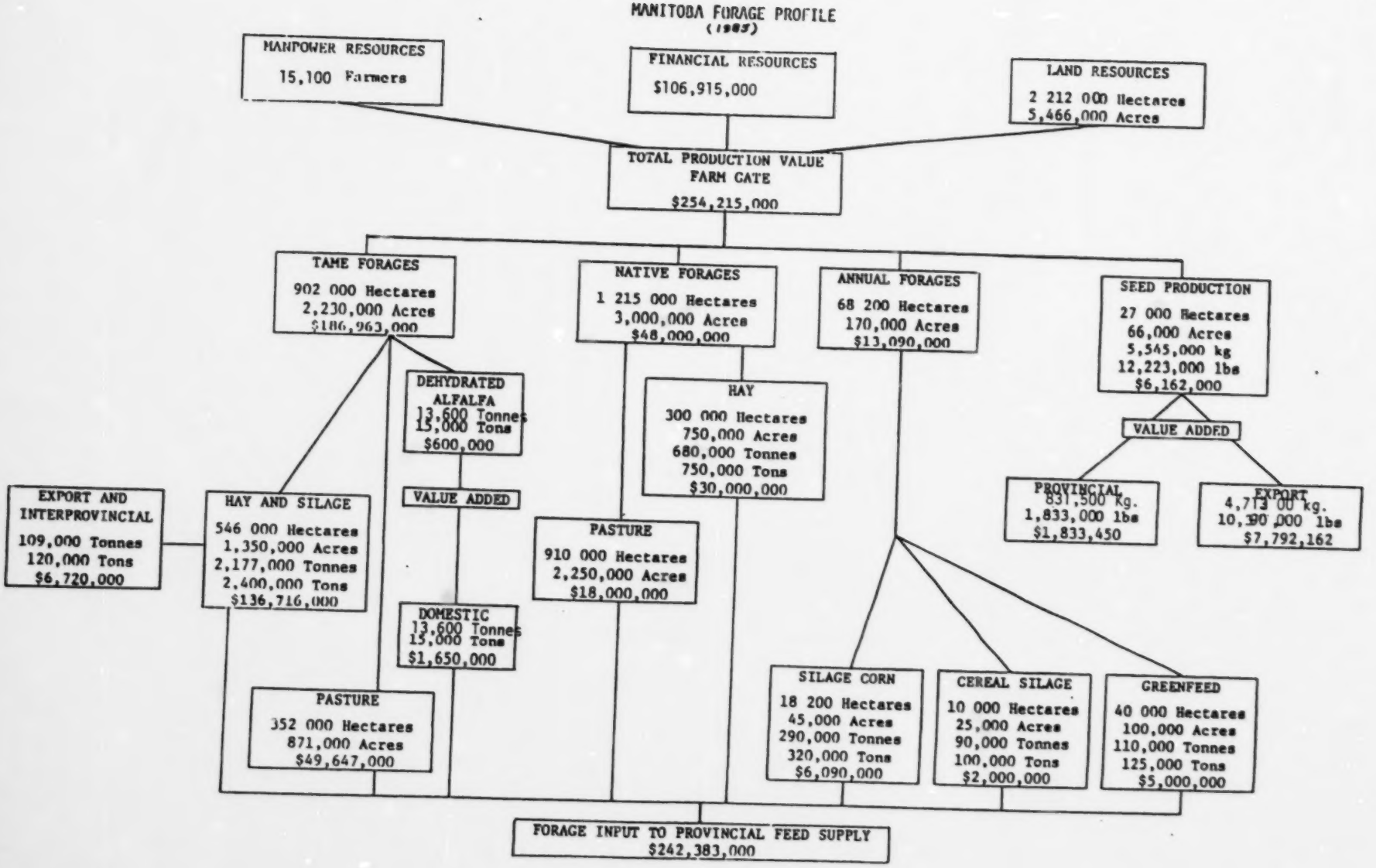
FORAGE MARKETING
(1985)



TAME HAY

Year	Acres (000)	Yield Per Acre (tons)	Production (000 tons)	Farm Value Price Per Ton $	Total ($000)
1970	1,160	1.92	2,230	15.00	33,450
1971	1,084	1.94	2,100	16.50	34,650
1972	1,200	1.67	2,000	20.00	40,000
1973	1,200	1.83	2,200	30.00	66,000
1974	1,250	1.92	2,400	35.00	84,000
1975	1,250	2.00	2,500	37.00	92,500
1976	1,400	1.86	2,600	37.68	97,968
1977	1,400	1.86	2,600	37.50	97,500
1978	1,400	2.07	2,900	36.90	107,010
1979	1,350	1.93	2,600	45.36	117,936
1980	1,300	1.15	1,500	63.50	95,250
1981	1,250	2.00	2,500	54.43	136,078
1982	1,250	2.00	2,500	49.90	124,738
1983	1,300	1.85	2,400	49.89	119,735
1984	1,300	1.77	2,300	56.24	129,394
1985	1,350	1.78	2,400	57.00	136,716
1986 (Estimated)	*1,450*	*2.55*	*3,700*	*40.00*	*148,000*

MANITOBA FORAGE PROFILE
(1985)



FORAGE SEED PRODUCTION

(000 lbs.)

	1979	1980	1981	1982	1983	1984	1985	Estimated 1986
ALFALFA	400	500	1500	849	2870	2004	1874	2094
BIRDSFOOT TREFOIL	150	120	225	298	298	595	375	441
BROMEGRASS	100	100	100	220	165	99	99	88
KENTUCKY BLUEGRASS	330	17	17	298	243	110	110	220
MEADOW FESCUE	300	140	140	441	132	198	121	198
SINGLE CUT RED CLOVER	550	220	220	496	750	496	551	551
SWEET CLOVER	2500	650	650	6614	4400	3304	3086	3307
TIMOTHY	5250	2270	2270	7496	7500	8810	6007	7716
	9730	4057	9110	16712	16358	15616	12223	14615